



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant : George Nichols et al.
Serial No. : 09/458,248
Filed : December 9, 1999
Title : AUTOMOBILE PILLAR ELECTROACOUSTICAL TRANSDUCING

Art Unit : 2643
Examiner : Suhan Ni

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JUN 03 2002

BRIEF FOR APPELLANT

Technology Center 2600

(1) REAL PARTY IN INTEREST.

The real party in interest is Bose Corporation.

(2) RELATED APPEALS AND INTERFERENCES.

None.

(3) STATUS OF CLAIMS.

Claims 1, 5, 6, 8, 10-12, 16, 17, 21, 23 and 24 stand rejected under 35 U.S.C. §102(e) as being anticipated by Clauson. Claims 2-4, 13-15 and 22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Clauson as a primary reference in view of Iwanagawa as a secondary reference. Claims 7, 9, 18-20 and 25-29 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Clauson as a primary reference in view of Murayama as a secondary reference.

(4) STATUS OF AMENDMENTS.

No response to the final rejection was filed.

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(5) SUMMARY OF INVENTION

The invention is an acoustic assembly including an electroacoustical transducer, such as 22, and an acoustic element, separate from the electroacoustical transducer, designed and constructed to improve the acoustic performance of the electroacoustical transducer and be an element of a vehicle pillar, such as 20. The acoustic element may be a waveguide, such as 30, that may be two-ended or single-ended and have an acoustic volume, such as 30. The acoustic volume may be ported, such as with port 26. There may be a second electroacoustical transducer, such as 24'. The acoustic volume may be sealed, such as 34. The vehicle pillar may be an A-pillar. There may be a trim element, such as 20, for covering the vehicle pillar forming an acoustic element.

The automobile pillar may comprise a plurality of sound sources that may comprise a plurality of electroacoustical transducers, a first electroacoustical transducer and a port opening or a waveguide opening. A third of the sound sources may comprise a second electroacoustical transducer with the first and third sound sources positioned equidistantly from the second sound source. P. 3, lines 17-page 5, line 20.

(6) ISSUES.

1. Whether claims 1, 5, 6, 8, 10-12, 16, 17, 21, 23 and 24 are anticipated by Clauson under 35 U.S.C. §102(e) when this reference does not disclose each and every element in each rejected claim arranged as in the claim.

2. Whether claims 2-4, 13-15 and 22 are unpatentable over Clauson as a primary reference in view of Inagawa as a secondary reference under 35 U.S.C. §103(a) when the references do not suggest the desirability of combining what is there disclosed to meet the terms of these rejected claims.

3. Whether claims 7, 9, 18-20 and 25-29 are unpatentable over Clauson as a primary reference in view of Murayama as a secondary reference under 35 U.S.C. §103(a) when the references do not suggest the desirability of combining what is there disclosed to meet the terms of these claims.

(7) GROUPING OF CLAIMS.

The claims do not stand or fall together.

(8) ARGUMENT.

I. CLAUSON DOES NOT ANTICIPATE CLAIMS 1, 5, 6, 8, 10-12, 16, 17, 21, 23 AND 24 AT LEAST BECAUSE THE REFERENCE DOES NOT DISCLOSE AN ACOUSTIC ELEMENT SEPARATE FROM THE ELECTROACOUSTICAL TRANSDUCER DESIGNED AND CONSTRUCTED TO IMPROVE THE ACOUSTIC PERFORMANCE OF THE ELECTROACOUSTICAL TRANSDUCER AND BE AN ELEMENT OF A VEHICLE PILLAR NOR AN AUTOMOBILE PILLAR COMPRISING A PLURALITY OF SOUND SOURCES, NOR A SEALED ACOUSTIC VOLUME.

The final action states:

Claims 1, 5-6, 8, 10-12, 16-17, 21 and 23-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Clauson et al. (US-6,179,359).

Regarding claims 1, 11 and 21, Clauson discloses an acoustic assembly for automobile comprising: an electro-acoustical transducer (44); and an acoustic element (12), separate from said transducer, and structured to improve the acoustic performance of said transducer; wherein said assembly is an element of a vehicle pillar (Fig. 1).

Regarding claims 5-6, 8, 10, 12, 16-17 and 23-24, Clauson further discloses the acoustic assembly, wherein said acoustic assembly is a sealed acoustic volume (Fig. 3) of an A-pillar (Fig. 1) as claimed. P. 2.

The final action continues:

Regarding the arguments on page 3, the applicants state "the reference does not identify A-pillar 12 as an acoustic element". The examiner respectfully disagrees with applicants' opinion. An A-pillar 12 of cited reference (US-6,179,359) clearly is a part of an acoustic housing for the assembly and without such part of the housing or acoustic element, the assembly could not be operated properly. Regarding claim 25, the examiner is apologized for an error which claim 25 should be clearly grouped into the rejection for claims 7, 9, 18-20 and 26-29 with the same subject matter claimed.

Regarding the arguments on page 4 to claims 5-6, 8, 10, 12, 16-17 and 23-24, the examiner respectfully disagrees with applicants' opinion. One skilled person in the art will clearly understand that the cited reference (US-6,179,359) does clearly show: the acoustic assembly having an acoustic volume (Figs. 1-3) as claimed in claims 5, 16 and 23 by the applicants; said acoustic volume being ported (Fig. 2, the port for the speaker) as claimed in claims 6 and 17; said acoustic volume being closed or sealed (Figs. 1-3) as claimed in claims 8 and 19;

and said vehicle pillar is the A-pillar (Fig. 1) as claimed in claims 10, 12 and 24.
P. 4.

"It is well settled that anticipation under 35 U.S.C. 102 requires the presence in a single reference of all of the elements of a claimed invention." *Ex parte Chopra*, 229 U.S.P.Q. 230, 231 (BPA&I 1985) and cases cited.

"Anticipation requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim." *Connell v. Sears, Roebuck & Co.*, 220 U.S.P.Q. 193, 198 (Fed. Cir. 1983).

"This court has repeatedly stated that the defense of lack of novelty (i.e., 'anticipation') can only be established by a single prior art reference which discloses each and every element of the claimed invention." *Structural Rubber Prod. Co. v. Park Rubber Co.*, 223 U.S.P.Q. 1264, 1270 (Fed. Cir. 1984), citing five prior Federal Circuit decisions since 1983 including *Connell*.

In a later analogous case the Court of Appeals for the Federal Circuit again applied this rule in reversing a denial of a motion for judgment n.o.v. after a jury finding that claims were anticipated. *Jamesbury Corp. v. Litton Industrial Prod., Inc.*, 225 U.S.P.Q. 253 (Fed. Cir. 1985).

After quoting from *Connell*, "Anticipation requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim," 225 U.S.P.Q. at 256, the court observed that the patentee accomplished a constant tight contact in a ball valve by a lip on the seal or ring which interferes with the placement of the ball. The lip protruded into the area where the ball will be placed and was thus deflected after the ball was assembled into the valve. Because of this constant pressure, the patented valve was described as providing a particularly good seal when regulating a low pressure stream. The court quoted with approval from a 1967 Court of Claims decision adopting the opinion of then Commissioner and later Judge Donald E. Lane:

[T]he term "engaging the ball" recited in claims 7 and 8 means that the lip contacts the ball with sufficient force to provide a fluid tight seal. *** The Saunders flange or lip only sealingly engages the ball 1 on the upstream side when the fluid pressure forces the lip against the ball and never sealingly engages the ball on the downstream side because there is no fluid pressure there to force the lip against the ball. The Saunders sealing ring provides a compression type of seal which depends upon the ball pressing into the material of the ring. *** The seal of Saunders depends primarily on the contact between the ball and the body

of the sealing ring, and the flange or lip sealingly contacts the ball on the upstream side when the fluid pressure increases. 225 U.S.P.Q. at 258.

Relying on *Jamesbury*, the ITC said, "Anticipation requires looking at a reference, and comparing the disclosure of the reference with the claims of the patent in suit. A claimed device is anticipated if a single prior art reference discloses all the elements of the claimed invention as arranged in the claim." *In re Certain Floppy Disk Drives and Components Thereof*, 227 U.S.P.Q. 982, 985 (U.S. ITC 1985).

The reference does make reference to a conventional speaker 44; however, the reference does not identify A-pillar 12 as an acoustic element, but only as "a structural member 12." Col. 2, lines 53-54. But the claims call for the acoustic element designed and constructed to improve the acoustic performance of the electroacoustical transducer with the acoustic assembly designed and constructed to be an element of a vehicle pillar. The reference does not disclose the nonexistent acoustic element constructed to improve the acoustic performance of the electroacoustical transducer. The teaching of the reference is, "Speaker assembly 42 is operable for sounding an alarm to alert vehicle occupants to one or more pre-determined conditions such as opening a vehicle door" Col. 3, lines 37-39, disclosing that speaker 44 has little need for improvement of its acoustic performance. Furthermore, claim 25 calls for an automobile pillar comprising a plurality of sound sources, and nothing in the reference discloses an automobile pillar comprising a plurality of sound sources.

There is nothing in the reference that discloses that the cavity formed by the trim mounted on the A-pillar functions as an acoustic volume, a speaker enclosure, or any other such description. As for the Examiner's statement that the speaker assembly could not be operated properly if this were not an acoustic volume, that is clearly an incorrect statement, for the reference makes clear that "speaker assembly 42 is for sounding an alarm to alert vehicle occupants to one or more pre-determined conditions, such as opening a vehicle door" Col. 3, lines 37-40.

The Examiner also asserts that FIG. 2 shows the nonexistent acoustic volume as being ported. FIG. 2 has numerical references as follows:

- 24 A Pillar Trim Assembly
- 40 Main Body or Trim Panel

42 Conventional Speaker Assembly
44 Speaker
46 Wire Harness
50 Body Portion
52 Speaker Retention Portion
54 Conventional Retention members
56 Wiring Harness Anchor Tabs
58 Edge
60 Flange

There is no disclosure of a port. Then, having asserted that FIG. 2 shows a port, the Examiner asserts that FIGS. 1-3 show the volume being closed or sealed. It is impossible for FIG. 2 to show a sealed or closed acoustic volume that is ported. Nor is there anything in the reference to indicate that the nonexistent acoustic volume is closed.

As to claims 5, 6, 8, 10, 12, 16, 17, 23 and 24, added limitations independently support patentability of these claims. The reference fails to disclose a sealed volume, let alone a sealed acoustic volume. Claim 5 calls for the acoustic element being an acoustic volume. The specification on page 5, lines 4-9 states, "The dimensions and any other parameters of the acoustic element are selected to improve the acoustic performance of electroacoustical transducer 24, such as by improving the frequency response of electroacoustical transducer 24, expanding the effective frequency range of electroacoustical transducer 24, or improving the spatial effect of electroacoustical transducer 24." The specification and these rejected claims require that the acoustic volume be such that it must affect the acoustic output of a transducer. Nothing in the reference even remotely suggests that function for the disclosed structure.

What the Examiner has been doing is using the claims being rejected as a blueprint or template for attempting to read the prior art upon the claims.

The alleged teaching is found, not in the references but in the claims being rejected. It is error to reconstruct the claimed invention from the prior art by using the rejected claim as a "blueprint." *Interconnect Planning Corp. v. Feil*, 227 U.S.P.Q. 543, 548 (Fed. Cir. 1985).

Here, the Examiner relied upon hindsight to arrive at the determination of obviousness. It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. 15 This court has previously stated that "[o]ne cannot use hindsight reconstruction to pick and choose among isolated

disclosures in the prior art to deprecate the claimed invention."16 *In re Fritch*, 23 U.S.P.Q. 2d 1780, 1784 (Fed. Cir. 1992).

15 *In re Gorman*, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991). See also *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed. Cir. 1985).
16 *In re Fine*, 837 F.2d at 1075, 5 USPQ2d at 1600.

Should this ground of rejection have been repeated, we respectfully requested the Examiner to associate each element in each rejected claim with corresponding elements in the reference, and quote verbatim the language regarded as identifying each corresponding element. The Examiner did not and can not comply with this request.

II. CLAUSON AND YANAGAWA CANNOT BE COMBINED TO FORM THE SUBJECT MATTER OF CLAIMS 2-4, 13-15 AND 22, LET ALONE SUGGEST THE DESIRABILITY OF COMBINING WHAT IS THERE DISCLOSED TO MEET THE TERMS OF THESE CLAIMS.

The final rejection states:

Claims 2-4, 13-15 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clauson et al. (US-6,179,359) in view of Yanagawa (US-4,509,184).

Regarding claims 2-4, 13-15 and 22, Clauson does not clearly show a waveguide as claimed. But Yanagawa discloses a stereo sound system for automobile comprising a waveguide (Figs. 3A and 4A). Therefore it would have been obvious to one skilled in the art at the time the invention was made to provide waveguide for the acoustic assembly taught by Clauson, in order to provide desirable acoustic sound for users. P. 3.

The final rejection further states:

Regarding claims 2-4, 7, 9, 13-15, 18-20, 22, 26-29, the applicants argue no motivation to combine the references. It is not necessary that the references actually suggest, expressly or in so many words the changes or improvements that applicants have made. The test for combining references is what the references as [a] whole would have suggested to one of ordinary skilled [sic] in the art. *In re Sheckler*, 168 USPQ 716 (CCPA 1971); *In re Mlaughlin* [sic] 170 USPQ 209 (CCPA 1971); *In re Young* 159 USPQ 715 (CCPA 1968). Pp. 4-5.

This ground of rejection is respectfully traversed.

"The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." *In re Gordon*, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984).

"Although the Commissioner suggests that [the structure in the primary prior art reference] could readily be modified to form the [claimed] structure, '[t]he mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification.'" *In re Laskowski*, 10 U.S.P.Q. 2d 1397, 1398 (Fed. Cir. 1989).

"The claimed invention must be considered as a whole, and the question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination." *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick*, 221 U.S.P.Q. 481, 488 (Fed. Cir. 1984).

"Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under Section 103, teachings of references can be combined *only* if there is some suggestion or incentive to do so." *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984) (emphasis in original, footnotes omitted).

"The critical inquiry is whether 'there is something in the prior art as a whole *to suggest* the desirability, and thus the obviousness, of making the combination. [citing *Lindemann* with emphasis added.]" *Fromson v. Advance Offset Plate, Inc.*, 225 U.S.P.Q. 26, 31 (Fed. Cir. 1985).

Nothing in the references remotely suggests the desirability of modifying what is there disclosed to meet the terms of the rejected claims. These rejected claims are dependent upon claim 1, and we have shown above that claim 1 is not met by the primary reference. Therefore, it is impossible to combine the primary and secondary references to form the rejected claims.

"Moreover, we observe that even if these references were combined in the manner proposed by the examiner, that which is set forth in appellant's claims . . . would not result." *Ex parte Bogar*, slip op. p.7 (BPA&I Appeal No. 87-2462, October 27, 1989). "Even if we were to agree with the examiner that it would have been obvious to combine the reference teachings in the manner proposed, the resulting package still would not comprise zipper closure material that

terminates short of the end of the one edge of the product containing area, as now claimed." *Ex parte Schwarz*, slip op. p.5 (BPA&I Appeal No. 92-2629 October 28, 1992).

The impossibility of combining the primary and secondary references to form the subject matter of these rejected claims is reason enough for reversing this ground of rejection. If this ground of rejection were repeated, the Examiner was respectfully requested to associate each element in each of these rejected claims with corresponding elements in the references, and quote verbatim the language in the references identifying the elements and the language in the references regarded as suggesting the desirability of combining what is there disclosed to meet the terms of these rejected claims. The Examiner did not and can not comply with this request.

The reliance by the Examiner on three cases, p. 5, is inapposite. In *In re Sheckler*, 168 U.S.P.Q. 716 (C.C.P.A. 1971), the court affirmed the Board in effect finding that the primary and secondary references did suggest the desirability of combining what is there disclosed to meet the terms of the single rejected claim. The primary reference taught the juxtaposition, in a concrete member, of layers of concrete and organic foam material while the secondary reference disclosed coextensive layers of material (glass) and foam in a composite building block, with the foam useful for insulation against transfer of heat and sound. The court concluded, "Together, these references make it obvious to one skilled in the field of concrete structure and building blocks to put together foam and concrete in a composite building block, in the way taught by rejected claim 5." *Id.* 717.

Reliance on *In re McLaughlin*, 170 U.S.P.Q. 209 (C.C.P.A. 1970) is especially inapposite because the references there did not suggest the desirability of combining what is there disclosed to meet the terms of rejected claim 15, and the court reversed the final rejection of claim 15, but the references did suggest the desirability of combining what was there disclosed to meet the terms of rejected claims 13 and 14. There the court said, "The Cook patent does indicate that the car shown therein is suitable for carrying palletized loads with lift trucks being used for the loading and unloading, including stacking of the pallets. Since the secondary references show that it was well known to use side filler panels and bulkheads to confine palletized loads to prevent lateral and longitudinal shifting, we agree that those references would have suggested use of such panels and bulkheads with the Cook car for the same purpose."

And in *In re Young*, 159 U.S.P.Q. 726 (C.C.P.A. 1968), the Board and court rejected arguments advanced by the applicant regarding limitations that were not present in the claims in agreeing with the Board and Examiner that claims 14 and 16-18 recite a method which would be obvious from the prior art to a person of ordinary skill in the art. *Id.* 727-28.

III. CLAUSON AND MURAYAMA CANNOT BE COMBINED TO FORM THE SUBJECT MATTER OF CLAIMS 7, 9, 18-20 AND 25-29, LET ALONE SUGGEST THE DESIRABILITY OF COMBINING WHAT IS THERE DISCLOSED TO MEET THE TERMS OF THESE CLAIMS.

The final action states:

Claims 7, 9, 18-20 and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clauson et al. (US-6,179,359) in view of Murayama et al. (US-5,297,212).

Regarding claims 7, 9, 18, 20 and 25-29, Clauson does not clearly show a second or and third acoustic transducer as claimed. But Murayama discloses a loudspeaker system for automobile comprising at least a second transducer (1, 2). Therefore it would have been obvious to one skilled in the art at the time the invention was made to provide the second, or and third transducer for the acoustic assembly taught by Clauson as an alternate choice, for providing a better acoustic effect for the assembly.

Regarding claims 19, Clauson further discloses the acoustic assembly, wherein said acoustic assembly is a sealed acoustic volume (Fig. 3) of an A-pillar (Fig. 1) as claimed. P. 3.

There are millions of automobile sound systems with more than one transducer. However, there is nothing in either the primary or secondary reference that even remotely suggests the desirability of having more than one transducer in the A-pillar or in the trim on the A-pillar. As to claim 19, there is no disclosure in the primary reference of an acoustic assembly that is a closed volume. Furthermore, these claims are dependent upon parent claims that we have shown above are not anticipated by the primary reference; therefore, it is impossible to combine the references to form the subject matter of these rejected claims.

If this ground of rejection were repeated, the Examiner was respectfully requested to associate each element in these claims with corresponding elements in the references, quoting verbatim the language in the references regarded as corresponding to the elements and the

language regarded as suggesting the desirability of combining what is there disclosed to meet the terms of these claims. The Examiner did not and can not comply with this request.

CONCLUSION

In view of the foregoing authorities, reasoning, and the inability of the prior art, alone or in combination, to anticipate, suggest or make obvious the subject matter as a whole of the invention disclosed and claimed in this application, the decision of the Examiner finally rejecting claims 1-29 should be reversed. Should the Board be of the opinion that a claim may be allowed in amended form, the Board is respectfully requested to include an explicit statement that such claim may be allowed in such amended form and direct that Appellant shall have the right to amend in conformity with such statement in the absence of new references or grounds of rejection.

The brief fee of \$320 is enclosed. The Commissioner is authorized to apply any charges or credits to Deposit Account No. 06-1050, Order No. 02103-365001.

Respectfully submitted,

FISH & RICHARDSON P.C.

Date: MAY 10 2002

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Enclosures: Figures 1-7C (7 sheets)

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(9) APPENDIX: REJECTED CLAIMS.

1. An acoustic assembly comprising an electroacoustical transducer; and an acoustic element, separate from said electroacoustical transducer, designed and constructed to improve the acoustic performance of said electroacoustical transducer; said acoustic assembly designed and constructed to be an element of a vehicle pillar. *explain how 12 improve acoustic performance*
2. An acoustic assembly in accordance with claim 1, wherein said acoustic element is a waveguide.
3. An acoustic assembly in accordance with claim 2, wherein said waveguide is a two-ended waveguide.
4. An acoustic assembly in accordance with claim 2, wherein said waveguide is a single-ended waveguide.
- ✓ 5. An acoustic assembly in accordance with claim 1, wherein said acoustic assembly is an acoustic volume.
6. An acoustic assembly in accordance with claim 5 wherein said acoustic volume is ported.
7. An acoustic assembly in accordance with claim 6 further comprising a second electroacoustical transducer.
- ✓ 8. An acoustic assembly in accordance with claim 5 wherein said acoustic volume is sealed.
9. A acoustic assembly in accordance with claim 8, further comprising a second electroacoustical transducer.
10. An acoustic assembly in accordance with claim 1, wherein said vehicle pillar is the A-pillar.
11. A structural automobile pillar containing an acoustic assembly, said acoustic assembly including an acoustical driver and an acoustic element. *vehicle pillar*
12. An automobile pillar in accordance with claim 11, wherein said pillar is an A-pillar.
13. An automobile pillar in accordance with claim 12, wherein said acoustic element is a waveguide.
14. An acoustic assembly in accordance with claim 13, wherein said waveguide is a two-ended waveguide.

15. An acoustic assembly in accordance with claim 13, wherein said waveguide is a single-ended waveguide.

16. An automobile pillar in accordance with claim 12, wherein said acoustic element in an acoustic volume.

17. An acoustic assembly in accordance with claim 16 wherein said acoustic volume is ported.

18. An acoustic assembly in accordance with claim 17 further comprising a second transducer.

19. An acoustic assembly in accordance with claim 18 wherein said acoustic volume is sealed.

20. (Amended) An acoustic assembly in accordance with claim 10 further comprising a second electroacoustical transducer.

✓ 21. A trim element for covering a vehicle pillar, said trim element forming an acoustic assembly.

22. A trim element in accordance with claim 21 wherein said acoustic assembly is a waveguide.

23. A trim element in accordance with claim 21 wherein said acoustic assembly is an acoustic volume.

24. A trim element in accordance with claim 21 wherein said vehicle pillar is an A-pillar.

25. An automobile pillar comprising a plurality of sound sources.

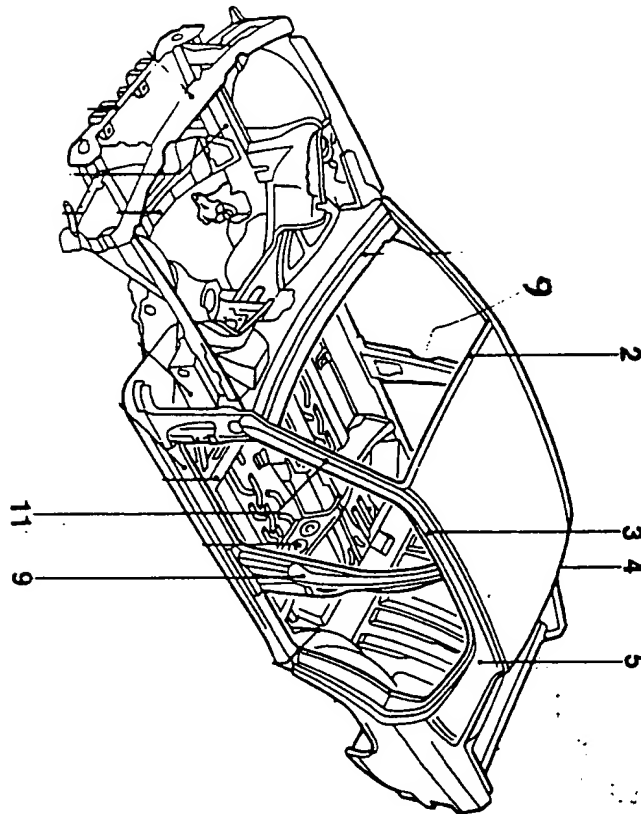
26. An automobile pillar in accordance with claim 25 wherein said plurality of sound sources comprises a plurality of electroacoustical transducers.

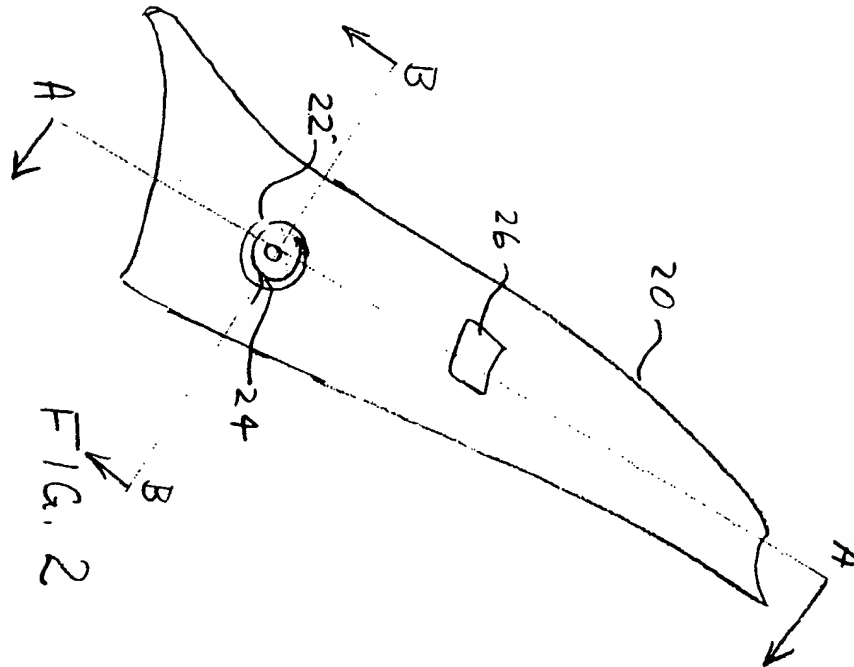
27. An automobile pillar in accordance with claim 25, wherein a first of said sound sources comprises a first electroacoustical transducer and a second of said sound sources comprises a port opening.

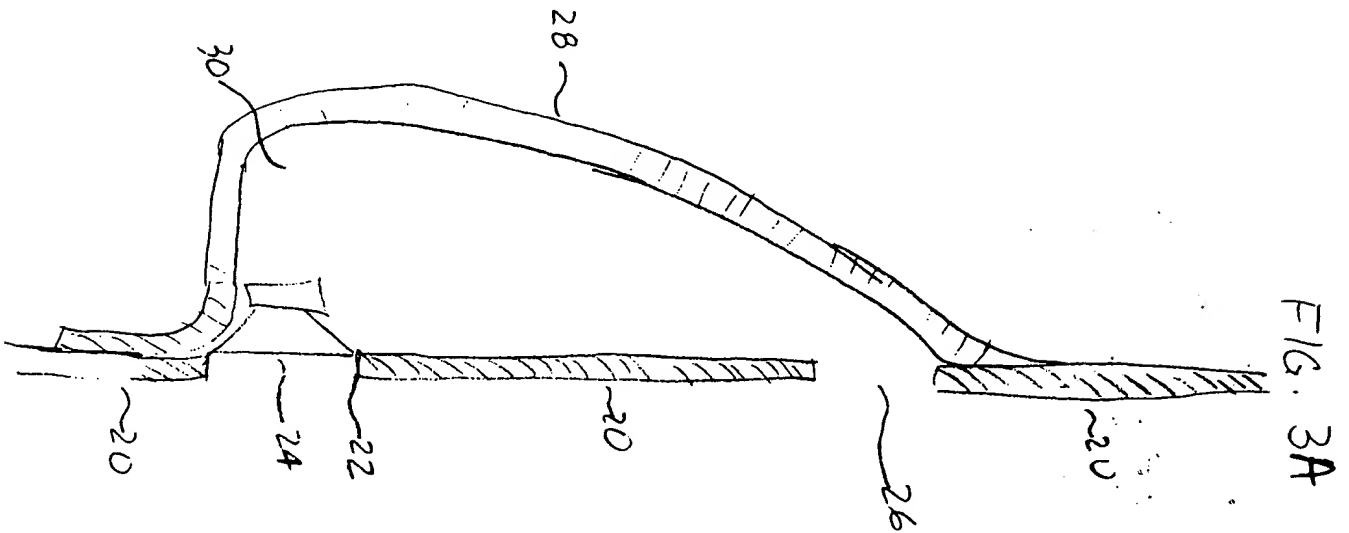
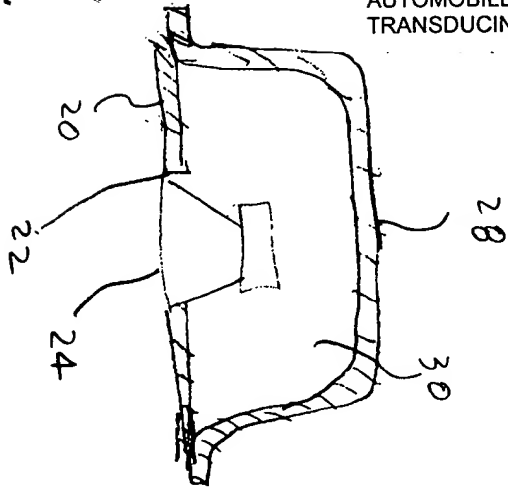
28. An automobile pillar in accordance with claim 27, wherein said a third of said sound sources comprises a second electroacoustical transducer wherein said first and said third sound sources are positioned equidistantly from said second sound source.

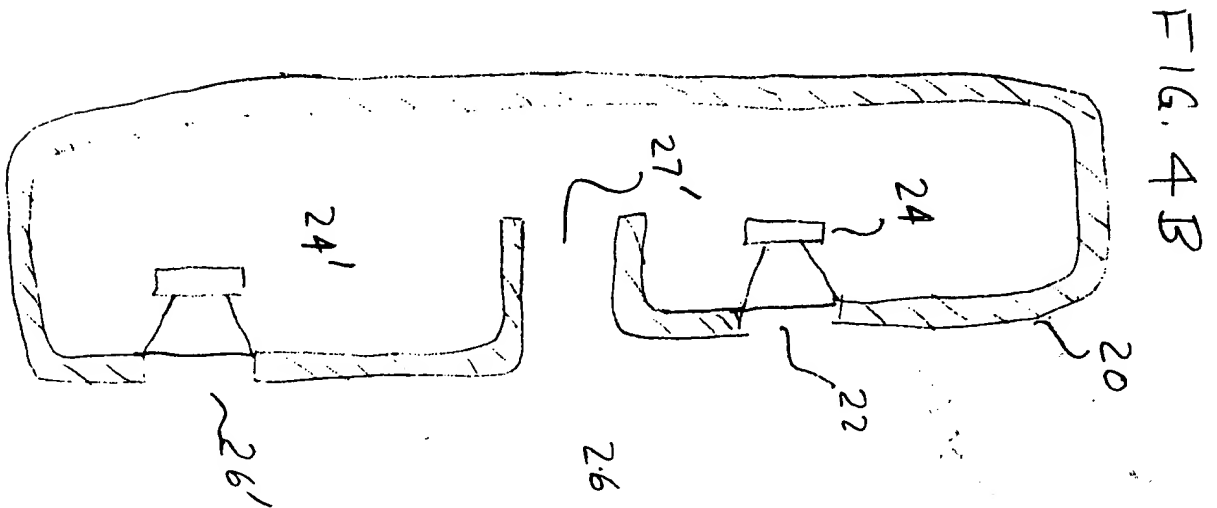
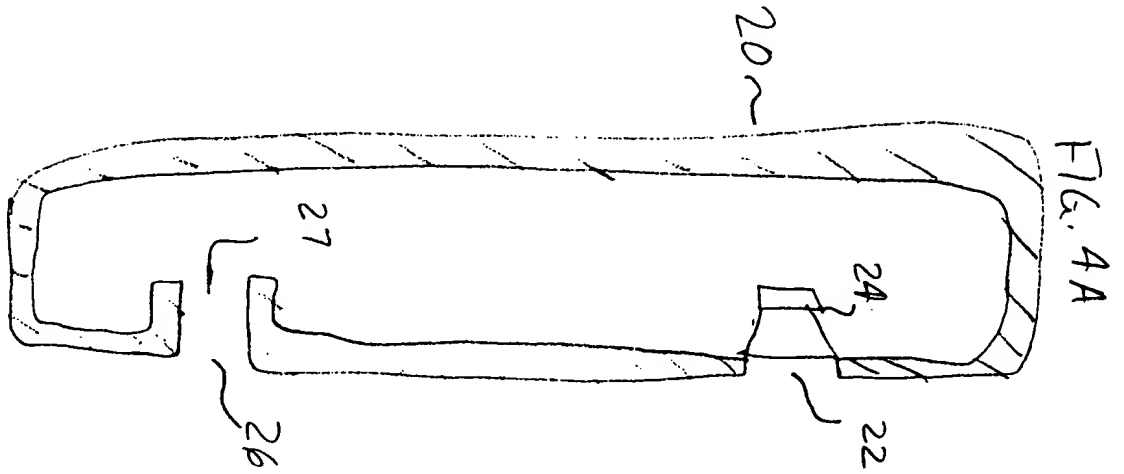
29. An automobile pillar in accordance with claim 25, wherein said plurality of sound sources comprises an electroacoustical transducer and a waveguide opening.

Single
Acoustical
7









Applicant(s): George Nichols et al.
AUTOMOBILE PILLAR ELECTROACOUSTICAL
TRANSDUCING

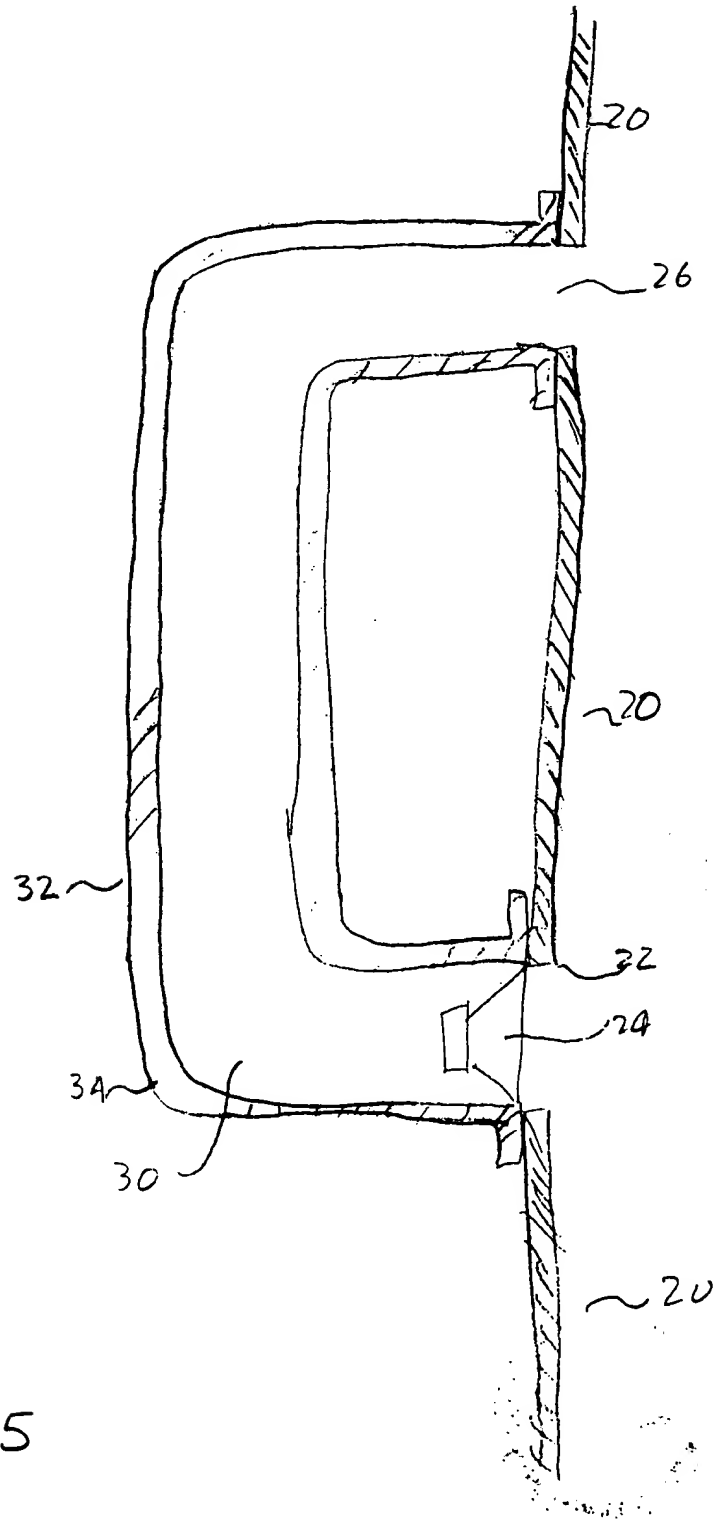


FIG. 6

